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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of			Dated: September 22, 2006
MARCOS TERES			HP Docket No. 10001329-1
Serial No.	:	09/918,688	Examiner Y. Qin
Filed	:	July 30, 2001	Group Art Unit 2622
For	:	COMPUTER-ASSISTED PRINTER ERROR DIAGNOSIS	

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

S i r :

AMENDED BRIEF OF APPELLANT

This Amended Brief is presented in opposition to the Examiner's final rejection of claims 1-7, 9-16 and 18-20 in the Office action dated March 13, 2006. Pursuant to the Notification of Non-Compliant Appeal Brief dated August 22, 2006, this Brief is amended to include more specific references to the specification by line and page numbers of the specification for the subject matter recited in each independent claim, as set out at 37 C.F.R. § 41.37(c)(1)(v)

This Amended Brief replaces the Brief of Appellant filed July 31, 2006.

I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences.

III. STATUS OF CLAIMS

The present application was filed on July 30, 2001 with original claims 1-20. In the response dated August 19, 2005, Appellant amended claims 1, 13, 15, 16 and 19. In the response dated February 2, 2006, Appellant amended claims 1, 13 and 19, and cancelled claims 8 and 17.

Claims 1-7, 9-16 and 18-20 as amended in the response dated February 2, 2006 are the claims at issue in this appeal.

IV. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Office action dated March 13, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The summary is set forth in exemplary embodiments. Discussions of selected elements and recitations of claimed subject matter can be found at least at the cited locations in the specifications and drawings. The claims of the present application are

directed to methods and systems for diagnosing a printer malfunction, as generally described at page 3, line 24 to page 4, line 14 of the specification, and as set out in Figures 1, 2, 3, and 7.

More particularly, independent Claim 1 is directed to a computer-implemented method for diagnosing a malfunction in a printer system. An exemplary method is depicted in Fig. 3, and described in the specification at page 4, lines 4 to 14. The claimed method includes communicating a present description of one or more symptoms of the printer system malfunction to a processor (30), correlating the symptoms with known printer system malfunctions (31), where correlating the one or more symptoms includes comparing the present description of the one or more symptoms to a database relating symptoms to known printer system malfunctions, identifying a most appropriate malfunction that would produce the described symptoms (32), and reporting the most appropriate malfunction (33), where reporting includes electronically transmitting a report.

Independent claim 13 is directed to a system (20) for diagnosing a malfunction in a printer system. An exemplary system is depicted in Figs. 1 and 2, and described in the specification at page 3, line 24 to page 4, line 3. The claimed system includes a database relating descriptions of symptoms of printer system malfunctions to known printer system malfunctions (in memory 24), and a processor (22) configured to collect a present description of one or more symptoms of a present printer system malfunction, to compare the present description to the database relationships, to identify a most appropriate malfunction that would produce the symptoms described in the present

description, and to report the most appropriate malfunction, wherein reporting the most appropriate malfunction includes electronically transmitting a report (29) to a service center or service technician (26).

The exemplary system 20 may include a processor 22, an input 23 (such as a keyboard), and an output 21 (such as a display). System 20 is in communication with a printer system 10 that includes a printer 11. As shown in Fig. 2, processor 22 may be in direct or indirect communication with the printer system 10 via connection 27 Processor 22 is also in communication with a memory 24, and may further be in communication with a remote server via an Internet connection 25, or with a printer service facility 26.

Claim 19 is directed to a computer-implemented method of diagnosing a malfunction of a printer system using a processor. An exemplary method is depicted in the flowchart of Fig. 3, and described in the specification at page 4, lines 4 to 14. The claimed method includes communicating a description of one or more symptoms of the malfunction to the processor (30), comparing the described symptoms to a database relating descriptions of symptoms to known printer system malfunctions (31), identifying the malfunction most likely to produce the described symptoms (32), and electronically reporting the most likely malfunction to a service center or service technician (33).

The step of reporting may include a variety of output methods, including but not limited to displaying the report on a monitor 21, printing a report on an associated printer or printer system 10, or electronically transmitting a report. As described in the specification at page 8, lines 13-21, where the report is electronically transmitted, it may be incorporated in an electronic mail message, transmitted as a text document, or in

any other suitable electronic format. The report may be sent directly to an appropriate printer service facility 26, or to a service technician, and may include a recommendation for a particular service procedure. This electronic transmission may occur via a dial-up connection or an Internet connection.

VI. GROUNDS OF REJECTION

In the Office action dated March 13, 2006, claims 1, 5-7, 9-13, 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Maekawa et al. (U.S. Patent No. 5,386,271). Claims 2-4, 14-16, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Maekawa et al. (U.S. Patent No. 5,386,271) in view of Hamilton et al. (U.S. Patent No. 5,200,958).

VII. ARGUMENT

Claims 1, 5-7, 9-13, 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Maekawa et al. (U.S. Patent No. 5,386,271). Appellant asserts that the Examiner has failed to establish the *prima facie* obviousness of claims 1, 5-7, 9-13, 18 and 19, and that the rejection of claims 1, 5-7, 9-13, 18 and 19 under 35 U.S.C. § 103 is therefore improper.

The Examiner suggests that the Maekawa et al. reference discloses the displaying of information on a monitor, which reads on electronically transferring a report to a service technician. The Examiner further suggests that although it is not explicitly disclosed that the report is transferred to a technician, it would be obvious to one of ordinary skill in the art at the time of invention for a technician to be looking at the displayed report. Appellant respectfully disagrees.

Maekawa et al. is directed to control systems for copy machines, where a centralized control unit receives data transmitted from each copy machine control device, and diagnoses the condition of the copy machines. The system of Maekawa et al. includes a user side and a center side. The user side includes a copying machine 4, a data terminal 1, a modem 52, and a telephone machine 53. The center side includes a modem 72, a telephone machine 73, and a computer 90 that includes a CPU 91, a display 92, a keyboard 93, and a printer 94 (see col. 3, lines 36-60). The center receives data from data terminal 1, and CPU 91 then performs a diagnosis based upon the received data (see col. 5, line 64 to col. 6, line 12).

The Examiner has previously characterized the center side as a service facility. Appellant disagreed, as Maekawa et al. discloses only transmission of data to CPU 91. The data is analyzed using CPU 91 only after transmission of the data. As CPU 91 is itself responsible for performing the diagnostic process, the data transmitted to CPU 91 cannot itself include a report identifying the most appropriate malfunction, (see Figs. 19, 20, 24 to 26).

In response, the Examiner has recharacterized the display of information on a monitor as the electronic transmission of a report to a service technician. Appellant respectfully disagrees. First, one of ordinary skill in the art, would not equate the mere display of information on a monitor with "electronically transmitting a report", as recited in claim 1.

Accordingly, in the present specification, Appellant has recited a variety of output methods, including "displaying the report on a monitor, printing a report on an

associated printer or printer system, ***or*** electronically transmitting a report" (at page 8, lines 13-15, emphasis added). Electronic transmission is also characterized in the specification:

> "Where the report is electronically transmitted, it is optionally incorporated in an electronic mail message, transmitted as a text document, or in any other suitable electronic format. This electronic transmission optionally utilizes a dial-up connection, or alternatively may be sent via an Internet connection." (In the specification at page 8, lines 17-21)

In view of the explicit description of what is considered "electronic transmission" in the specification, and that it is presented as an alternative to displaying the report on a monitor, Appellant respectfully suggests that the Examiner's interpretation of Maekawa et al. is over-reaching, and guided by hindsight.

As set out at MPEP § 2143.01, the prior art must suggest the desirability of the invention, that is, the motivation to formulate the invention cannot be found in applicant's specification, which is then used as a filter through which to view the prior art. The mere fact that references *can be* combined or modified does not render the resultant combination obvious unless the prior art *also* suggests the desirability of the combination. Without some objective reason in the references to combine the teachings of the references, even a statement that modifications of the prior art to meet the claimed invention would have been "'well within the ordinary skill of the art at the time the claimed invention was made'" is not sufficient to establish a *prima facie* case of obviousness.

The burden of establishing a *prima facie* case of obviousness can only be satisfied by a showing of some objective teaching in the prior art that would lead an individual to combine or modify the relevant teachings of the references. The mere fact that the prior art *may* be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art also suggests the desirability of the modification.

In this instance, as the "cause of trouble, measures to be taken and a possibility thereof" are being displayed at a centralized control unit (col. 12, lines 48-51 of Maekawa), the reference provides no further motivation to additionally electronically transmitting a report (as in claims 1 and 13) or electronically reporting (as in claim 19) to a service center or service technician (as in claims 13 and 19).

Appellant respectfully suggests that the Examiner has failed to establish the *prima facie* obviousness of claims 1, 13, and 19, as Maekawa et al. fails to teach or suggest each element of the rejected claims, and fails to provide a suggestion or motivation to modify the reference or to combine the reference teachings. As claims 5-7, 9-12, and 18 depend directly or indirectly from independent claims 1, 13, and 19, Appellant suggests that claims 5-7, 9-12, and 18 are allowable for at least the same reasons as provided for claims 1, 13, and 19.

With particular respect to claim 9, the Examiner has suggested that although Maekawa et al. discloses the display of a report, and does not explicitly disclose sending a report to a printer service facility, that the transfer of data through a

communications connection such as a LAN or the Internet is well-known and so it would be obvious to one of ordinary skill in the art to send the report to an appropriate location.

Appellant suggests that Maekawa et al. fails to disclose even the existence of an "appropriate location", and reiterate that merely an assertion that the recited modification of the prior art to meet the claimed invention would have been "'well within the ordinary skill of the art at the time the claimed invention was made'" is not sufficient to establish a *prima facie* case of obviousness. Maekawa et al. fails to disclose the electronic transmission of a report, as described in the specification, and fails to disclose the electronic transmission of a report to a printer service facility. For at least these reasons, Appellant suggests that claim 9 is additionally patentable over the Maekawa et al. reference.

Claims 2-4, 14-16, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Maekawa et al. (U.S. Patent No. 5,386,271) in view of Hamilton et al. (U.S. Patent No. 5,200,958). Appellant asserts that the Examiner has failed to establish the *prima facie* obviousness of claims 2-4, 14-16, and 20, and that the rejection of claims 2-4, 14-16, and 20 under 35 U.S.C. § 103 is therefore improper.

As discussed above, Appellant suggests that the Maekawa et al. reference fails to disclose each and every element of claims 1, 13, and 19, and that therefore even in combination with the Hamilton et al. reference, the *prima facie* obviousness of claims 1, 13, and 19 has not been established. As claims 2-4, 14-16, and 20 depend from claims 1, 13, and 19, Appellant respectfully suggests that the *prima facie* obviousness of claims 2-4, 14-16, and 20 has similarly not been established.

In addition, Appellant respectfully suggests that the Hamilton et al. reference contradicts the assertion of the Examiner that the references, taken in combination, disclose the electronic transmission of a report, or electronic reporting to a service center or service technician, as recited in claims 1, 13, and 19.

Hamilton et al. is directed to a method and apparatus for recovering from faults in an electronic reprographic system. The Hamilton et al. system provides for an online diagnostic that can verify or isolate a suspected problem with the reprographic system, pass the results of the diagnostic to the software, and convey the fault information to the operator (at col. 2, line 62 to col. 3, line 8). In fact, as shown at box 226 of the flowchart of Fig. 8a of, Hamilton et al., after the diagnostic routine is initiated, "test results conveyed to operator". However, Hamilton et al. makes clear that the results of the diagnostic are conveyed to the operator via the user interface of the reprographic system itself (see col. 9, lines 60-68).

Similar to Maekawa et al., the Hamilton et al. reference fails to disclose the electronic transmission of a report, and in fact suggests away from the transmission of such a report to a service facility. Hamilton et al. is specific in reciting that the software client "conveys the results to the service technician via the user interface **52**" (col. 11, lines 1-6, emphasis added).

Both Maekawa et al. and Hamilton et al. explicitly disclose displaying the results of a diagnostic test on a display. Neither Maekawa et al. nor Hamilton et al. disclose or suggest the electronic transmission of a report of an identified most appropriate malfunction, or the electronic reporting of a most likely malfunction to a service center or service technician, where the malfunction is identified by correlating one or more symptoms of printer malfunction with a database relating symptoms to known printer system malfunctions, Appellant suggests that the cited references, separately or in combination, fail to establish the *prima facie* obviousness of claims 1, 13, and 19, and therefore fail to establish the *prima facie* obviousness of dependent claims 2-4, 14-16, and 20.

Therefore, in the absence of a disclosure of each and every element of the claims, and the absence of specific motivation or suggestion in the references themselves to combine or modify the reference teachings as suggested by the Examiner, Appellant suggests that the *prima facie* obviousness of the method of claim 1, the system of claim 13, and the computer-implemented method of claim 19 has not been properly established. As claims 2-7, 9-12, 14-16, 18, and 20 depend directly or indirectly from independent claims 1, 13, and 19, Appellant suggests that claims 2-7, 9-12, 14-16, 18, and 20 are allowable for at least the same reasons as provided for claims 1, 13, and 19.

VIII. CLAIMS APPENDIX

1. A computer-implemented method for diagnosing a malfunction in a printer system using a computer system comprising a processor, the method comprising the steps of:

communicating a present description of one or more symptoms of the printer system malfunction to the processor;

correlating the one or more symptoms with known printer system malfunctions, wherein correlating the one or more symptoms includes comparing the present description of the one or more symptoms to a database relating symptoms to known printer system malfunctions;

identifying a most appropriate malfunction that would produce the described symptoms; and

reporting the most appropriate malfunction, where reporting includes electronically transmitting a report.

2. The method of claim 1, where the description of the one or more symptoms includes an error log recorded by the printer system.

3. The method of claim 2, where the printer system includes a printer input device, and the error log includes input device errors.

4. The method of claim 3, where the printer system includes a printer output device, and the error log includes output device errors.

5. The method of claim 1, where the description of one or more symptoms of the printer system malfunction is received from the printer system.

6. The method of claim 1, where the description of one or more symptoms of the printer system malfunction is received from the printer system operator.

7. The method of claim 1, where the step of communicating includes sending a query from the processor to the printer system and receiving descriptions of one or more symptoms of the printer system malfunction from the printer system.

8. (Canceled)

9. The method of claim 1, where the report is electronically transmitted via a communications connection with a printer service facility.

10. The method of claim 9, where the report includes a service procedure recommendation.

11. The method of claim 10, where the service procedure is a part replacement.

12. The method of claim 1, where the processor is accessible via an Internet connection.

13. A system for diagnosing a malfunction in a printer system, comprising:

a database relating descriptions of symptoms of printer system malfunctions to known printer system malfunctions; and

a processor configured to collect a present description of one or more symptoms of a present printer system malfunction, to compare the present description to the database relationships, to identify a most appropriate malfunction that would produce the symptoms described in the present description, and to report the most appropriate malfunction, wherein reporting the most appropriate malfunction includes electronically transmitting a report to a service center or service technician.

14. The system of claim 13, where the processor is directly or indirectly linked to the printer system.

15. The system of claim 14, where the printer system is configured to record an error log, and where collection of the present description includes downloading the error log from the printer system.

16. The system of claim 15, where comparing the present description to the database relationships includes comparing the error log to the database relationships.

17. (Canceled)

18. The system of claim 13, where reporting the most appropriate malfunction includes a service procedure recommendation.

19. A computer-implemented method of diagnosing a malfunction of a printer system using a processor, the method comprising the steps of:

communicating a description of one or more symptoms of the malfunction to the processor;

comparing the described symptoms to a database relating descriptions of symptoms to known printer system malfunctions;

identifying the malfunction most likely to produce the described symptoms; and

electronically reporting the most likely malfunction to a service center or service technician.

20. The computer-implemented method of claim 19, where the processor is directly or indirectly linked to the printer system, and the description of one or more symptoms of the malfunction is a printer system error log.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.

Respectfully submitted,

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